IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)
	)
Alan L. FERGUSON et al.	) Group Art Unit: 2191
	)
Application No.: 10/016,785	) Examiner: M. Steelman
	)
Filed: December 6, 2001	) Confirmation No. 3421
	)
For: SYSTEM AND METHOD FOR	)
REMOTELY MODIFYING	)
SOFTWARE ON A MACHINE	)

Attention: Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

APPEAL BRIEF UNDER BOARD RULE § 41.37

Pursuant to Board Rule 41.37, in support of the Notice of Appeal filed September 12, 2005, and in response to the Notice of Panel Decision from Pre-Appeal Brief Review dated October 14, 2005, Appellants present this brief and a petition for a one-month extension of time extending the period to respond to the Notice to December 14, 2005. Appellants also enclose herewith a check for the fee of $120.00 for the extension of time.

This Appeal responds to the final rejection of claims 1-27 dated May 16, 2005. If any additional fees are required or if the enclosed payment is insufficient, Appellants request that the required fees be charged to Deposit Account No. 06-0916.

Table of Contents

I.   Real Party In Interest

Caterpillar Inc. is the real party in interest.

II.   Related Appeals and Interferences

There are currently no other appeals or interferences, of which Appellants, Appellants' legal representative, or Assignee are aware, that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status Of Claims

This application includes twenty-seven (27) claims. Claims 1-27 stand finally rejected under 35 U.S.C. § 103(a) and are appealed by Appellants. A list of the appealed claims is presented in the attached Appendix A.

IV. Status Of Amendments

In response to the first Office Action mailed September 13, 2004, Appellants filed an Amendment on December 13, 2004 amending claims 1-4, 6-9, 12, 13, 19-23, 26, and 27. Appellants also submitted replacement drawings in the December 13 Amendment. No other amendments have been filed .

V. Summary Of Claimed Subject Matter

a. Claim 1

Independent claim 1 is directed to a system for updating software installed in a work machine (e.g., Fig. 1, element 100). A work machine may include, for example, "a track type tractor, grader, paver, or the like." (Appellants' specification at ¶ [17].) In accordance with certain embodiments, the work machine has at least one non-volatile memory for storing software. (*See, e.g.,* Appellants' specification, ¶¶ [18] and [21].) The system also includes a remote data storage system (e.g., Fig. 1, element 114) for storing identifying information of the software (e.g., Fig. 1, elements 118, 120). (*See, e.g.,* Appellants' specification, ¶ [24].) The system also includes a remote processor (e.g., Fig. 1, element 110) for monitoring the remote data storage system to determine if updates are available for the software. (*See, e.g.,* Appellants' specification, Fig. 2, ¶ [30].) The system further includes a remote communications system (e.g., Fig. 1, element 112) that is operably connected to the remote processor. (*See, e.g.,* Appellants' specification, ¶ [21].) The remote communications system receives the available updates from the remote processor and relays the available updates to the work machine for storage in the non-volatile memory. (*See, e.g.,* Appellants' specification, ¶ [35].)

b. Claim 12

Independent claim 12 is directed to a method for remotely updating software installed on a work machine (e.g., Fig. 1, element 100). The work machine has at least one non-volatile memory for storing the software. (*See, e.g.,* Appellants' specification,

7

¶¶ [18] and [21].) The method includes the steps of storing identifying information of said software (e.g., Fig. 1, elements 118, 120) in a remote data storage system (e.g., Fig. 1, element 114). (*See, e.g.,* Appellants' specification, ¶ [24].) The method further includes monitoring the remote data storage system-to determine if an update of said software is available. (*See, e.g.,* Appellants' specification, Fig. 2, ¶ [30].) Further, the method includes relaying the available update from the remote data storage system to the work machine and installing said available update in said non-volatile memory of the work machine. (*See, e.g.,* Appellants' specification, ¶ [35].)

c. Claims 26 and 27

In accordance with Rule 41.37(c)(1)(v), Appellants identify the means-plus-function elements of independent claim 26 and its corresponding dependent claim 27 and their corresponding structures as described in the specification. Unless otherwise indicated, the structure for each identified means-plus-function element is identified in brackets "[ ]." Appellants note that the structures identified below are representative structures or one of several combinations of structures corresponding to the recited means and in no way limits the scope of these claims as to 35 U.S.C. § 112, sixth paragraph, which specifically provides for coverage of equivalents of these structures.

Independent claim 26 is directed towards a system for updating software installed on a work machine (e.g., Fig. 1, element 100). In accordance with certain embodiments, the work machine has at least one non-volatile memory for storing software. (*See, e.g.,* Appellants' specification, ¶¶ [18] and [21].) The system also includes means [element 114] for remotely storing identifying information (e.g., Fig. 1, elements 118, 120). (*See, e.g.,* Appellants' specification, ¶ [24].) The system also

includes means [elements 102 and/or 110] for remotely monitoring said stored identifying information to determine if updates are available. (*See, e.g.,* Appellants' specification, Fig. 2, ¶ [30].) Also, the system includes means [elements 102 and/or 112] for remotely communicating with the work machine to relay the available updates to the work machine for storage in the non-volatile memory. (*See, e.g.,* Appellants' specification, ¶ [35].)

Claim 27 depends from claim 26 and concerns means [element 102 and/or 116] for notifying an owner of the work machine of the available update. (*See, e.g.,* Appellants' specification, ¶¶ [31] and [34].)

VI. Grounds of Rejection

Claims 1-27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Cantos et al.* (U.S. Patent No. 6,529,784) in view of *Lee et al.* (WO Published Application No. 97/46932) in further in view of *Hanson et al.* (U.S. Patent No. 5,517,434).

VII. Argument

<u>The rejections of claims 1-27 under 35 U.S.C. § 103(a)</u>

To establish a prima facie case of obviousness, three basic criteria must be met. First, the prior art reference or references, taken alone or combined, must teach or suggest each and every element recited in the claims. *See* M.P.E.P. § 2143.03. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention. *See* M.P.E.P. § 2143. Third, a reasonable expectation of success must exist. *See* M.P.E.P. § 2143.02. Moreover, each of these requirements must "be found in the prior art, and not based on applicant's disclosure." M.P.E.P. § 2143. For at least the following reasons, Appellants respectfully submit the Examiner has failed to establish a *prima facie* case of obviousness in connection with the rejections of claims 1-27.

a. **The rejection of independent claims 1, 12, and 26 under 35 U.S.C. § 103(a) must be reversed because *Cantos et al., Lee et al.,* and *Hanson et al.,* alone or in combination, do not teach or suggest, at least, a work machine having a non-volatile memory and relaying an available software update to the work machine for storage in the non-volatile memory.**

Appellants respectfully traverse the rejection of claims 1, 12, 26 under 35 U.S.C. § 103(a) because *Cantos et al., Lee et al.,* and *Hanson et al.* (collectively the "cited art") do not teach or suggest each and every recitation of these claims. For example, each of these claims recite, *inter alia,* a work machine having a non-volatile memory for storing software. Further, the software update(s) recited in claims 1, 12, and 26 are stored or installed in the non-volatile memory of the work machine.

11

The Examiner admits that *Cantos et al.* and *Lee et al.* each fail to teach the recitations of independent claims 1, 12, and 26 being "installed on a 'work machine'." (Final OA at 4.) To satisfy this deficiency, the Examiner asserts it would have been obvious to combine *Cantos et al.* and *Lee et al.* in a work machine based on the teachings of *Hanson et al.* Appellants respectfully disagree with the Examiner's position for the following reasons

In rejecting claims 1, 12, and 26, the Examiner asserts *Hanson et al.* discloses "updating software installed on a work machine." (Final OA at 4, citing *Hanson et al.*, col. 17, lines 45-61.) Contrary to the Examiner's assertions, however, *Hanson et al.* does not teach a work machine or updating software on a work machine. Instead, *Hanson et al.* describes a portable data terminal (*See Hanson et al.*, Fig. 1, element 10, and Fig. 16, element 300) that may be removably connected to a vehicle data bus via a receptacle (*See Hanson et al.*, Fig. 16, element 330). In certain embodiments, the data terminal is used by a vehicle operator to track items by scanning bar codes attached to the items. (*See Hanson et al.*, 2:20-25.) As noted by the Examiner, *Hanson et al.* describes in column 17 a storage means 370, control means 380, and an EEPROM "containing downloading/uploading control programming and application programming in RAM storage of means 370 for controlling on board devices . . . ." (*See Hanson et al.*, 17:44-54.) Storage means 370, however, is contained within data terminal 300, which is not part of a work machine. Indeed, the portable nature of data terminal 300 disclosed by *Hanson et al.* teaches away from having the terminal, and its components, fixed to a particular location. (*See e.g., Hanson et al.* 2:7-30, 6:35-38, and 17:62 to 18:6.)

In contrast, claim 1 recites, among other things,

> [a] system for updating software installed on a work machine, *the work machine having at least one non-volatile memory for storing the software* . . .
>
> a remote communications system operably connected to said remote processor, said remote communications system receiving said available updates from said remote processor and *relaying said available updates to said work machine for storage in said non-volatile memory.*

(Emphasis added.) Claim 12 recites in part,

> [a] method for remotely updating software installed on a work machine, *the work machine having at least one non-volatile memory for storing the software* . . .
>
> relaying said available update from said remote data storage system to said work machine; and
>
> *installing said available update in said non-volatile memory.*

(Emphasis added.) And, claim 26 recites in part,

> [a] system for updating software installed on a work machine, the work machine having at least one non-volatile memory for storing the software . . .
>
> means for remotely communicating with the work machine to relay said available updates to the work machine for storage in said non-volatile memory.

(Emphasis added.) Accordingly, claims 1, 12, and 26 require, among other things, that

the update(s) be stored or installed in the non-volatile memory of a work machine.

Consistent with the above claim language, Appellant's specification describes a work

machine 100 having a non-volatile memory. (*See, e.g.,* Appellant's specification, ¶¶

[18] and [21].) The recited claims enable a work machine memory (e.g., non-volatile

memory) to receive software updates. These features, as noted in the embodiments

disclosed in Appellant's specification, enable "upgrades and enhancements" to "be

13

made to the control and monitoring systems of the work machine without requiring a

visit by a technician . . . ." (Appellant's specification, ¶ [41].) Such claimed features are

not disclosed or suggested in the cited art. For example, as explained above, *Hanson*

et al. discloses a portable data terminal that includes software. The data terminal is not

a work machine, nor is it part of the work machine. Instead, the data terminal is a

removable device that is connected to vehicle via a receptacle. Further, although

Hanson et al. states data terminal 300 includes an EPROM "containing

downloading/updating control programming," the reference falls short of describing a

work machine including non-volatile memory that stores updates.

In response to Appellant's arguments, the Examiner issued an Advisory action on

August 12, 2005 maintaining the rejection of claims 1, 12, and 26 in view of the cited art.

In the Advisory Action, the Examiner stated,

> [a] work machine provides the location of a remote client. As
> any remote client, maintaining and updating the controllers in
> a simple efficient manner enhances the usability.
> Knowledge in the art, at the time of the invention suggests
> successful remote updates of software located on client
> machines. irregardless of the type of client machine
> involved.

(Advisory Action, 11(A), ll. 10-11.) Here, the Examiner appears to suggest that the

location of data terminal 300 in a vehicle provides the location a memory device that

receives software updates while in the vehicle. This interpretation does meet the

recitations of claims 1, 12, and 26, which each require "updating software installed on a

work machine, the work machine having at least one non-volatile memory for storing the

software." Further, the Examiner's interpretation of the cited art in light of claims 1, 12,

and 26 ignores the context of these claimed recitations as described in Appellant's

specification. As noted by the Federal Circuit, a claim term is to be read not only in the

14

context of its corresponding claim, but also "in the context of the entire patent, including specification." *Phillips v. AWH Corp.* 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). As noted above, it is clear from both claims 1, 12, and 26 and Appellant's specification that the software is installed on a work machine having a non-volatile memory for storing the software. This is quite different from storing software on a hand held data terminal that is carried onto and mounted in a receptacle of a vehicle, as disclosed by *Hanson et al.*

Because, as admitted by the Examiner, *Cantos et al.* and *Lee et al.* do not disclose installing or storing software updates in a non-volatile memory of a work machine, and as noted above, *Hanson et al.* does not make up for these deficiencies, the Examiner has not established a *prima facie* case of obviousness. Therefore, Appellants respectfully request that the rejection of claims 1, 12, and 26 under 35 U.S.C. § 103(a) be reversed and the claims allowed.

b.   The rejection of claims 2, 13, and 27 under 35 U.S.C. § 103(a) must be reversed because *Cantos et al., Lee et al.,* and *Hanson et al.,* alone or in combination, do not teach or suggest, at least, notifying an owner of a work machine of an available software update.

The Examiner asserts *Cantos et al.* discloses notifying an owner of a work machine of an available update. (Final OA at 5.) The Examiner is incorrect for the following reasons. First, in rejecting claims 1, 12, and 26, the Examiner admitted that *Cantos et al.* does not teach a work machine, much less an invention "installed on a 'work machine'." (Final OA at 4.) Accordingly, it is contradictory for the Examiner to assert *Cantos et al.* teaches notifying an "owner" of a "work machine" to reject claims 2, 13, and 27. Moreover, as noted above, *Hanson et al.* fails to disclose a work machine or receiving updates in a non-volatile memory of the work machine. Further, *Cantos et*

al. does not teach or suggest notifying an owner of a work machine of an available update, as asserted by the Examiner. Instead, *Cantos et al.* describes a process where, in one instance, unsolicited software update availability may be brought to the attention of a user. The user disclosed by *Cantos et al.*, however, is not described as an owner of any system, much less an owner of a work machine, as recited in claims 2, 13, and 27. Accordingly, the Examiner has not established a *prima facie* case of obviousness. Therefore, Appellants respectfully request that the rejection of claims 2, 13, and 27 under 35 U.S.C. § 103(a) be reversed and the claims allowed.

c. **The rejection of claims 3, 4, 14, 15, and 17 under 35 U.S.C. § 103(a) must be reversed because *Cantos et al., Lee et al.,* and *Hanson et al.,* alone or in combination, do not teach or suggest, at least, installing an available update when an owner of a work machine accepts the available update.**

The Examiner asserts that *Cantos et al.* teaches an interface that allows an owner of a work machine to communicate acceptance of an available update and relaying the update to the work machine upon the acceptance. (Final OA at 5.) The Examiner, however, also admits *Cantos et al,* fails to teach an "update is related to said machine upon said owner communicating said acceptance." *Id.* To make up for this deficiency, the Examiner asserts *Lee et al.*'s disclosure of client acceptance for software upgrades in a computer network environment teaches owner acceptance of an update. The Examiner is incorrect for the following reasons. First, as noted above, in rejecting claims 1, 12, and 26, the Examiner admitted that *Cantos et al.* and *Lee et al.* do not teach a work machine, much less an invention "installed on a 'work machine'." (Final OA at 4.) Accordingly, it is contradictory for the Examiner to assert *Cantos et al.* and *Lee et al.* individually or collectively teach an "owner" of a "work machine" to reject claims 3, 4, 14, 15, and 17. Moreover, as noted above, *Hanson et al.* fails to disclose a

16

work machine or receiving updates in a non-volatile memory of the work machine. Further, although *Cantos et al.* discloses a process that allows a user to control further download procedures and *Lee et al.* shows procedures that inquire into the acceptability of an upgrade cost, the user queried in each reference is not an owner of a work machine. Contrary to the Examiner's assertions, the standard user input computer system techniques disclosed by *Cantos et al.* and *Lee et al.* do not teach or suggest relaying updates to a work machine in response to an owner of the work machine accepting the update, as recited in these claims. Accordingly, because the Examiner has not established a *prima facie* case of obviousness, Appellants respectfully request that the rejection of claims 3, 4, 14, 15, and 17 under 35 U.S.C. § 103(a) be reversed and the claims allowed.

d.   The rejection of claims 5 and 18, under 35 U.S.C. § 103(a) must be reversed because *Cantos et al., Lee et al.,* and *Hanson et al.,* alone or in combination, do not teach or suggest, at least, an electronic message includes a link to a web site allowing said owner to communicate acceptance of said available update.

The Examiner asserts *Cantos et al.* discloses a web server that can receive a user query to "determine whether upgraded versions of software packages are available and compatible." (Final OA at 6.) Again, Appellants disagree with the Examiner's positions because, as noted above, the cited art does not teach a work machine or updating software in a memory of the work machine. Indeed, the Examiner admits *Cantos et al.* and *Lee et al.* do not teach such features. (Final OA at 4.) Accordingly, the cited art does not support the Examiner's rejection of claims 5 and 18 under 35 U.S.C. § 103(a). Further, claims 5 and 18 require an electronic communication including a link to a web site allowing the work machine owner to communicate acceptance of the available update. In contrast, as noted by the Examiner, *Cantos et al.* discloses a system that

17

allows a user query to be sent to determine whether upgraded versions of software are available and compatible. (*Cantos et al.* at 6:39-50.) This user query, however, is not the same as an electronic communication including a link to a web site that allows a work machine owner to communicate acceptance of an available update. Instead, the cited disclosure in *Cantos et al.* merely shows a query mechanism that allows a user to request whether compatible updates are available. Therefore, because the cited art does not teach or suggest the recitations of claims 5 and 18, the Examiner has not established a *prima facie* case of obviousness. Thus, Appellants respectfully request the rejection of these claims be reversed and the claims allowed.

> **e.   The rejection of claims 6 and 16, under 35 U.S.C. § 103(a) must be reversed because *Cantos et al., Lee et al.,* and *Hanson et al.,* alone or in combination, do not teach or suggest, at least, a billing system operably connected to said remote processor for billing the work machine owner for an accepted available update.**

The Examiner asserts *Cantos et al.* discloses a billing system for billing a work machine owner. As noted above, the cited art does not teach or suggest a work machine or a work machine owner. Indeed, the Examiner admits that *Cantos et al.* and *Lee et al.* fail to disclose such features. (Final OA at 4.) Further, as explained, *Hanson et al.* does not teach a work machine or a work machine owner. Although *Cantos et al.* discloses a server that enables a customer to be charged for various downloading services, the customer is not a work machine owner. Therefore, the cited art does not support the rejection of claims 6 and 16 under 35 U.S.C. § 103(a) and thus, Appellants respectfully request the rejection of these claims be reversed and the claims allowed.

f. **The rejection of claims 7, 8, 19, 20, 21, and 22 under 35 U.S.C. § 103(a) must be reversed because *Cantos et al., Lee et al.,* and *Hanson et al.,* alone or in combination, do not teach or suggest, at least, polling at least one work machine nonvolatile memory to obtain identifying information and storing the identifying information in a data storage system that is relayed to a remote data storage system.**

The Examiner asserts *Cantos et al.* teaches a "machine process for polling said at least one non-volatile memory / in a work machine / to collect said identifying information." (Final OA at 7.) Further, the Examiner asserts *Cantos et al.* teaches storing the software identifying information in a machine data storage system and relaying the identifying information to a remote data storage system and a machine communication system receiving an available update from a remote communication system. (Final OA at 7-8.) Appellants disagree because as mentioned above, *Cantos et al.* does not teach a work machine, much less a machine processor or communication system. Indeed, in making these assertions, the Examiner contradicts the earlier admission that *Cantos et al.* and *Lee et al.* fail to teach a work machine. (Final OA at 4.) Accordingly, based on this admission and the disclosure of these references, the Examiner is incorrect in alleging *Cantos et al.* discloses a non-volatile memory "in a work machine" and a machine data storage system storing software identifying information and a machine communication system, as recited in claims 7, 8, 19, 20, 21, and 22. Therefore, the cited art does not support the rejection of these claims under 35 U.S.C. § 103(a) and thus, Appellants respectfully request the rejection of these claims be reversed and the claims allowed.

g. **The rejection of claims 9, 10, 23, and 24 under 35 U.S.C. § 103(a) must be reversed because** *Cantos et al., Lee et al.,* **and** *Hanson et al.,* **alone or in combination, do not teach or suggest, at least, a remote communication system comprising a wireless communication means including a cellular system.**

The Examiner asserts the description of the target computers having mobile/wireless telephone components, as disclosed by *Cantos et al.,* teaches the recitations of claims 9, 10, 23, and 24. (Final OA at 8.) Appellants respectfully disagree with the Examiner's interpretation of the cited art. Contrary to the Examiner's assertions, *Cantos et al.* describes the target computers as possibly having "other processor-based devices . . . such as . . . mobile/wireless telephones." In rejecting Appellants' claims, the Examiner previously associated the target computers with the work machine entity recited in Appellants' claims. In this regard, the target computers are not affiliated with a remote communication system, which as recited in Appellants' claims, relays updates to the work machine for storage in a non-volatile memory. Accordingly, the Examiner is incorrect in asserting the target computer described in column 3 of *Cantos et al.* discloses a remote communication system having a wireless communication means including a cellular system. Therefore, the cited art does not support the rejection of claims 9, 10, 23, and 24 under 35 U.S.C. § 103(a) and thus, Appellants respectfully request the rejection of these claims be reversed and the claims allowed.

h.   **The rejection of claims 11 and 25 under 35 U.S.C. § 103(a) must be reversed because *Cantos et al., Lee et al.,* and *Hanson et al.,* alone or in combination, do not teach or suggest, at least, a remote communication system comprising a wireless communication means including a satellite system.**

As noted above, the target computers disclosed by *Cantos et al.* are not affiliated with a remote communication system, which as recited in Appellants' claims, is separate from the work machine and relays the updates to the work machine for storage in the non-volatile memory. Additionally, even if *Cantos et al.* discloses wireless communications means associated with a remote communication system — a position Appellants do not concede — the description of a "mobile/wireless telephone" does not teach or suggest a satellite system, as recited in claims 11 and 23. Instead, *Cantos et al.* merely states its target computers may include mobile/wireless telephone components, and does not disclose or suggest a remote satellite communication system that relays software updates to a work machine for storage in its non-volatile memory. Therefore, the cited art does not support the rejection of claims 11 and 25 under 35 U.S.C. § 103(a) and thus, Appellants respectfully request the rejection of these claims be reversed and the claims allowed.

i.   **The rejection of claims 1-27 under 35 U.S.C. § 103(a) must be reversed because here is no motivation to combine *Hanson et al.* With *Cantos et al.* and *Lee et al.,* as asserted by the Examiner.**

Furthermore, the Examiner's allegations in the Final Office Action do not establish that a skilled artisan would have modified *Cantos et al., Lee et al.,* and *Hanson et al.* to include the features of claims 1-27. Determinations of obviousness must be supported by evidence on the record. *See In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001) (finding that the factual determinations central to the issue of patentability, including conclusions of obviousness by the Board, must be supported by "substantial evidence").

The desire to combine or modify references must be proved with "substantial evidence" that is a result of a "thorough and searching" factual inquiry. *See In re Lee*, 277 F.3d 1338, 1343-1344 (Fed. Cir. 2002) (quoting *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52). Moreover, the Federal Circuit has clearly stated that the evidence of a motivation or suggestion to modify a reference must be "clear and particular." *In re Dembicziak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

In this case, the Office Action does not show, by "clear and particular" evidence, that a skilled artisan considering *Cantos et al., Lee et al.,* and *Hanson et al,* and not having the benefit of Appellants' disclosure, would have been motivated to modify the references in a manner resulting in Appellants' claimed combination. The Examiner's assertion that it would have been obvious to combine *Cantos et al., Lee et al.,* and *Hanson et al.* because "vehicle controllers/computers are known in the art and maintaining, updating the controllers enhances the value of such equipment" (Final OA at 4.) does not establish a motivation or suggestion for modifying the cited art. M.P.E.P. § 2143.01 makes clear that "[t]he mere fact that references <u>can</u> be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination" (citations omitted). The Final Office Action does not show that *Hanson et al., Cantos et al.,* or *Lee et al.* suggest the desirability of a modification resulting the combination of elements recited in claims 1-27.

Furthermore, as M.P.E.P. § 2141.02 articulates, "[i]n determining the differences between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences <u>themselves</u> would have been obvious, but whether the claimed invention <u>as a whole</u> would have been obvious (internal citations omitted). The Federal Circuit

has explained that an examiner may find every element of a claimed invention in the prior art but mere identification is not sufficient to negate patentability. *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). The Court explained that "the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." *Id.* In this case, the Examiner merely alleged that *Hanson et al.* discloses certain elements without showing reasons why a skilled artisan would select or modify those elements in the manner claimed and without showing that the claimed invention <u>as a whole</u> would have been obvious. Discussing the particulars of *Hanson et al.* to assert a motivation to combine the reference with *Cantos et al.* and *Lee et al.* does not suffice to establish a *prima facie* conclusion of obviousness (e.g., OA at 4).

Indeed, the reasons for combining the cited art set forth by the Examiner do not address the asserted combination. Instead, the Examiner concentrates strictly on the disclosure of *Hanson et al.* to suggest the need for updating controller/computers on a work machine. Nowhere does the Examiner show where *Cantos et al.* and *Lee et al.* discloses a suggestion that would have motivated one of ordinary skill in the art to apply a portable data terminal system that may be removably connected to a vehicle, as disclosed by *Hanson et al.*, to the computer network systems described by *Cantos et al.* and *Lee et al..* Nor does the Examiner offer a reason why the general knowledge in the art at the time of Appellants' invention would have motivated such a combination. Instead, the Examiner's offers motivational reasons that are confined to *Hanson et al.* alone, relying on an unsupported conclusion that maintaining and updating vehicle

23

controllers "enhances the value of such equipment." (OA at 4.) Accordingly, the Examiner has not shown why one of ordinary skill in the art would have been motivated to combine *Hanson et al.* with *Cantos et al.* and *Lee et al.*

Accordingly, the Examiner's conclusions set forth in the Office Action were not reached based on facts gleaned from the cited references. Instead, Appellants submit the disclosure of the present application was improperly used to reconstruct the cited art to improperly reject claims 1-27 under 35 U.S.C. § 103(a).

In the Advisory Action dated August 12, 2005, the Examiner asserts the alleged combination would have been obvious because "Hanson likewise, noted the need to automate the software of remote clients (col. 2, lines 6-12.[)]." This statement, however, does not establish the requisite motivation for rejecting claims 1-27 under 35 U.S.C. § 103(a) for at least the reason that updating remote client software does not address updating or installing software in a memory of a work machine, as recited in claims 1-27. As alleged in the Final Office Action, the Examiner presents *Hanson et al.* to allegedly suggest the "invention installed in a work machine." This is not shown or supported by the Examiner's reliance on *Hanson et al.*

Further, the Examiner associates a work machine with a remote client and asserts "[a]s any remote client, maintaining and updating the controllers in a simple efficient manner enhances the usability." (Advisory Action at 11(A).) The Examiner, however, does not support these allegations with evidence. Instead, the Examiner makes conclusions without support from at least the cited art or other supporting analysis and documentation to show that one skilled in the art would have been motivated to make the alleged combination of the cited art. As such, the Examiner has not addressed the

fact that *Hanson et al.* or the other cited art teaches or suggests updating software in a memory of a work machine, as recited in claims 1-27.

The Examiner is also off base in asserting, "knowledge in the art, at the time of the invention suggests successful remote updates of software located on client machines, irregardless of the type of client machine involved." (Emphasis added.) The Examiner, however, improperly dismisses the requirements recited in Appellants' claims, which include, among other things, updates to be stored or installed in a non-volatile memory of a work machine. Thus, contrary to the Examiner's assertions, the knowledge in the art must consider the type of "machine involved." This is bolstered by the fact that *Cantos et al.* and *Lee et al.* are not even remotely associated with work machines or updating software in memory of a work machine. Further, while *Hanson et al.* discloses a portable terminal that may interface with a vehicle, the programming features of *Hanson et al.* is directed toward the portable terminal and its components, and not the vehicle's components or a memory thereof. Accordingly, the Examiner has failed to show why one skilled in the art at the time of Appellants' invention would look to modify computer network systems, as disclosed by *Cantos et al.* and *Lee et al.,* with a portable data reader terminal system disclosed by *Hanson et al.* to teach or suggest the recitations of claims 1-27. To this end, the Examiner has failed to establish a *prima facie* case of obviousness, and for at least these additional reasons, Appellants request that the rejection of these claims under 35 U.S.C. § 103(a) be reversed and the claims allowed.
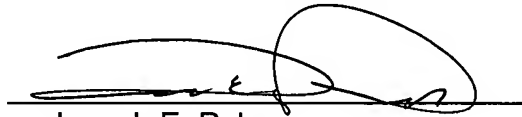
VIII. Conclusion

For the reasons given above, pending claims 1-27 are allowable and reversal of the Examiner's rejection is respectfully requested.

To the extent any extension of time under 37 C.F.R. § 1.136 is required to obtain entry of this Appeal Brief, such extension is hereby respectfully requested. If there are any fees due under 37 C.F.R. §§ 1.16 or 1.17 which are not enclosed herewith, including any fees required for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our Deposit Account No. 06-0916.

<div align="right">

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

</div>

Dated: December 14, 2005   By: _____

Joseph E. Palys
Reg. No. 46,508

Appendix A: Listing of Claims Under Rule 41.37(c)(1)(viii)

1.   (Previously Presented) A system for updating software installed on a work

machine, the work machine having at least one non-volatile memory for storing the

software, comprising:

a remote data storage system for storing identifying information of said software;

a remote processor for monitoring said remote data storage system to determine

if updates are available for said software; and

a remote communications system operably connected to said remote processor,

said remote communications system receiving said available updates from said remote

processor and relaying said available updates to said work machine for storage in said

non-volatile memory.

2.   (Previously Presented) The system, as set forth in claim 1, further

comprising:

an interface for notifying an owner of said work machine of said available

update.

3.   (Previously Presented) The system, as set forth in claim 2, wherein said

interface allows said owner to communicate acceptance of said available update and

wherein said available update is relayed to said work machine upon said owner communicating said acceptance.

4.   (Previously Presented) The system, as set forth in claim 3, wherein said interface includes an electronic message for notifying said owner.

5.   (Original) The system, as set forth in claim 4, wherein said electronic message includes a link to a web site allowing said owner to communicate acceptance of said available update.

6.   (Previously Presented) The system, as set forth in claim 3, further comprising:

a billing system operably connected to said remote processor for billing said owner for said accepted available update.

7.   (Previously Presented) The system, as set forth in claim 1, further comprising:

. a machine processor for polling said at least one nonvolatile memory to collect said identifying information; and a machine data storage system for storing said identifying information, said identifying information being relayed from said machine data storage system to said remote data storage system.

8.   (Previously Presented) The system, as set forth in claim 7, further comprising:

a machine communication system operably connected to said machine processor, said machine communication system receiving said available update from said remote communication system.

9.   (Previously Presented) The system, as set forth in claim 1, wherein said remote communication system comprises wireless communication means.

10.   (Original) The system, as set forth in claim 9, wherein said wireless communication means is a cellular system.

11.   (Original) The system, as set forth in claim 9, wherein said wireless communication means is a satellite system.

12.   (Previously Presented) A method for remotely updating software installed on a work machine, the work machine having at least one non-volatile memory for storing the software, comprising:

storing identifying information of said software in a remote data storage system;

monitoring said remote data storage system to determine if an update of said software is available;

relaying said available update from said remote data storage system to said work machine; and

installing said available update in said non-volatile memory.

13.   (Previously Presented) The method, as set forth in claim 12, further comprising the step of notifying an owner of said work machine of the availability of said update.

14.   (Original) The method, as set forth in claim 13, further comprising the step of awaiting acceptance by said owner of said available update.

15.   (Original) The method, as set forth in claim 14, wherein said available update is installed in said non-volatile memory if said owner accepts said available update.

16.   (Original) The method, as set forth in claim 15, further comprising the step of billing said owner for said available update upon acceptance of said owner of said available update.

17.   (Original) The method, as set forth in claim 13, wherein said owner is notified of said available update by an electronic communication.

18.   (Original) The method, as set forth in claim 17, wherein said electronic communication includes a link to a web site allowing said owner to communicate acceptance of said available update.

19.   (Previously Presented) The method, as set forth in claim 17, wherein said storing step includes the step of:

relaying said identifying information from said work machine to said remote data storage system.

20.   (Previously Presented) The method, as set forth in claim 19, wherein said storing step further includes the steps of:

polling said at least one non-volatile memory in said work machine to

obtain said identifying information; and

storing said identifying information in a machine data storage system.

21.   (Previously Presented) The method, as set forth in claim 19, wherein said relaying step includes relaying said identifying information from a machine communication system to a remote communication system for storage in said remote data storage system.

22.   (Previously Presented) The method, as set forth in claim 12, wherein said available update is relayed by a remote communication system.

23.   (Previously Presented) The method, as set forth in claim 22, wherein said remote communication system comprises wireless means.

24. (Original) The method, as set forth in claim 23, wherein said wireless means is a cellular system.

25. (Original) The method, as set forth in claim 23, wherein said wireless means is a satellite system.

26. (Previously Presented) A system for updating software installed on a work machine, the work machine having at least one non-volatile memory for storing the software, comprising:

means for remotely storing identifying information;

means for remotely monitoring said stored identifying information to determine if updates are available, and

means for remotely communicating with the work machine to relay said available updates to the work machine for storage in said non-volatile memory.

27. (Previously Presented) The system, as set forth in claim 26, further comprising:

means for notifying an owner of said work machine of said available update.

Evidence Appendix to Appeal Brief Under Rule 41.37(c)(1)(ix)

There is no evidence being relied upon by Appellants in this appeal.

<u>Related Proceedings Appendix to Appeal Brief Under Rule 41.37(c)(1)(x)</u>

There are currently no other appeals or interferences, of which Appellants,

Appellants' legal representative, or Assignee are aware, that will directly affect or be

directly affected by or have a bearing on the Board's decision in the pending appeal.